UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

02/17/2004

LUMEN INTELLECTUAL PROPERTY SERVICES 45 CABOT AVENUE SUITE 110 SANTA CLARA, CA 95051

EXA	MINER
NGUY	YEN, TU T
ART UNIT	PAPER NUMBER
2877	<u> </u>

DATE MAILED: 02/17/2004

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,689	02/01/2001	Richard N. Zare	S00-184	3470

TITLE OF INVENTION: PULSE-BY-PULSE CAVITY RING-DOWN SPECTROSCOPY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	05/17/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

□ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee artifications. maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590

02/17/2004

LUMEN INTELLECTUAL PROPERTY SERVICES **45 CABOT AVENUE** SUITE 110 SANTA CLARA, CA 95051

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name	
(Signature	
(Date	

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nonprovisional	NO	\$1330		\$300	\$1630	05/17/2004
EXAM	MINER	ART UNIT	ſ	CLASS-SUBCLASS]	
NGUYEN, TU T 2877		2877		356-432000		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). □ Change of correspondence address (or Change of Correspondence			names of agents OI	nting on the patent front page, up to 3 registered patent at R, alternatively, (2) the name	ttorneys or 1 of a single	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent				
		attorneys will be pri	or agents. If no name is listed inted.	I, no name 3		

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):			
☐ Issue Fee	A check in the ame	ount of the fee(s)	is enclosed.	
☐ Publication Fee	Payment by credit	card. Form PTO-	2038 is attached.	
☐ Advance Order - # of Copies	☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment Deposit Account Number (enclose an extra copy of this form).			rpayment, to n).
Director for Patents is requested to apply the Issue Fee and Pub	lication Fee (if any) or to re-apply	any previously p	aid issue fee to the application identified above.	
(Authorized Signature)	(Date)			
NOTE; The Issue Fee and Publication Fee (if required) wi other than the applicant; a registered attorney or agent; or interest as shown by the records of the United States Patent ar	the assignee or other party in			
This collection of information is required by 37 CFR 1.311 obtain or retain a benefit by the public which is to file (an application. Confidentiality is governed by 35 U.S.C. 122 and estimated to take 12 minutes to complete, including gatherin completed application form to the USPTO. Time will vary case. Any comments on the amount of time you require suggestions for reducing this burden, should be sent to the Patent and Trademark Office, U.S. Department of Co	d by the USPTO to process) an 137 CFR 1.14. This collection is 139, preparing, and submitting the depending upon the individual to complete this form and/or Chief Information Officer, U.S.			

collection of information unless it displays a valid OMB control number.



United States Patent and Trademark Office

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SUITE 110			ART UNIT	PAPER NUMBER
SANTA CLARA,	CA 95051		2877	
			DATE MAILED: 02/17/200	4

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 528 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 528 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)			
•	09/775,689	ZARE ET AL.			
Notice of Allowability	Examiner	Art Unit			
	Tu T. Nguyen	2877			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included nerewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.					
 This communication is responsive to 10/20/2003. The allowed claim(s) is/are 1-39. The drawings filed on 01 February 2001 are accepted by the drawings filed on a claim for foreign priority under the communication of the communication. All b) □ Some* c) □ None of the: Certified copies of the priority documents have 	der 35 U.S.C. § 119(a)-(d) or (f). been received.				
Certified copies of the priority documents have					
3. Copies of the certified copies of the priority do	cuments have been received in this	national stage application from the			
International Bureau (PCT Rule 17.2(a)).					
* Certified copies not received: 5. Acknowledgment is made of a claim for domestic priority uperference was included in the first sentence of the specification of the sp	ation or in an Application Data Shee	sional application) since a specific et. 37 CFR 1.78.			
 (a) The translation of the foreign language provisional application has been received. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78. 					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of	f this communication to file a reply on this application. THIS THREE-MC	complying with the requirements noted NTH PERIOD IS NOT EXTENDABLE.			
7. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EXAMINERes reason(s) why the oath or declar	R'S AMENDMENT or NOTICE OF ation is deficient.			
 CORRECTED DRAWINGS (as "replacement sheets") must (a) ☐ including changes required by the Notice of Draftspers 1) ☐ hereto or 2) ☐ to Paper No 	st be submitted. son's Patent Drawing Review(PTC	0-948) attached			
(b) including changes required by the proposed drawing of	 -	een approved by the Examiner.			
(c) ☐ including changes required by the attached Examiner	s Amendment / Comment or in the	Office action of Paper No			
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t	.84(c)) should be written on the draw the margin according to 37 CFR 1.121	rings in the front (not the back) of I(d).			
 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. 					
Attachment(s)					
1☐ Notice of References Cited (PTO-892)	-	Patent Application (PTO-152)			
2☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3☐ Information Disclosure Statements (PTO-1449 or PTO/SB/0		(PTO-413), Paper No ment/Comment			
Paper No 4 Examiner's Comment Regarding Requirement for Deposit of Biological Material	8⊠ Examiner's Stateme 9⊡ Other .	ent of Reasons for Allowance			
		Tu T. Nguyen Primary Examiner Art Unit: 2877			

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Prior arts of record does not disclose a pulse by pulse optical absorption apparatus. The apparatus comprises: a time resolving means for optically time resolving at least one response pulse produced by a cavity in response to said pulse; a detector for detecting an intensity of at least one time-resolved pulse produced by said time resolving means as disclosed in claims 1,20.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2877

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Tu T. Nguyen
Primary Examiner
Art Unit 2877

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1/23/04